

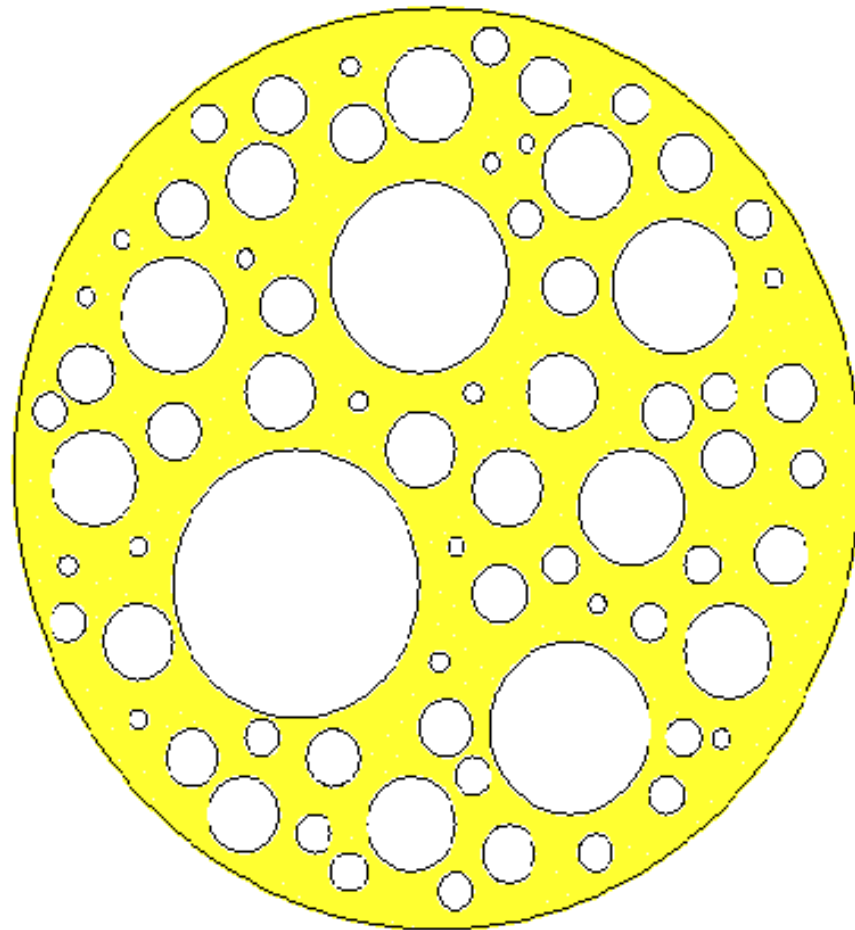
# Developments in Soil Survey Research and Characterization Data

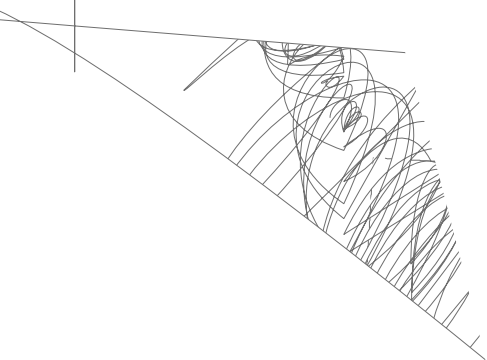
North Central Work Planning Conference  
June 2008



- MLRA Soil Survey Office Charges
  - updating soil surveys on a physiographic basis
  - develop long-range plans, project plans, annual plans
  - perform investigations throughout the MLRA(s)
  - maintain soil survey datasets
  - inventory and review of benchmark soils
  - review and update of official series descriptions
  - etc.

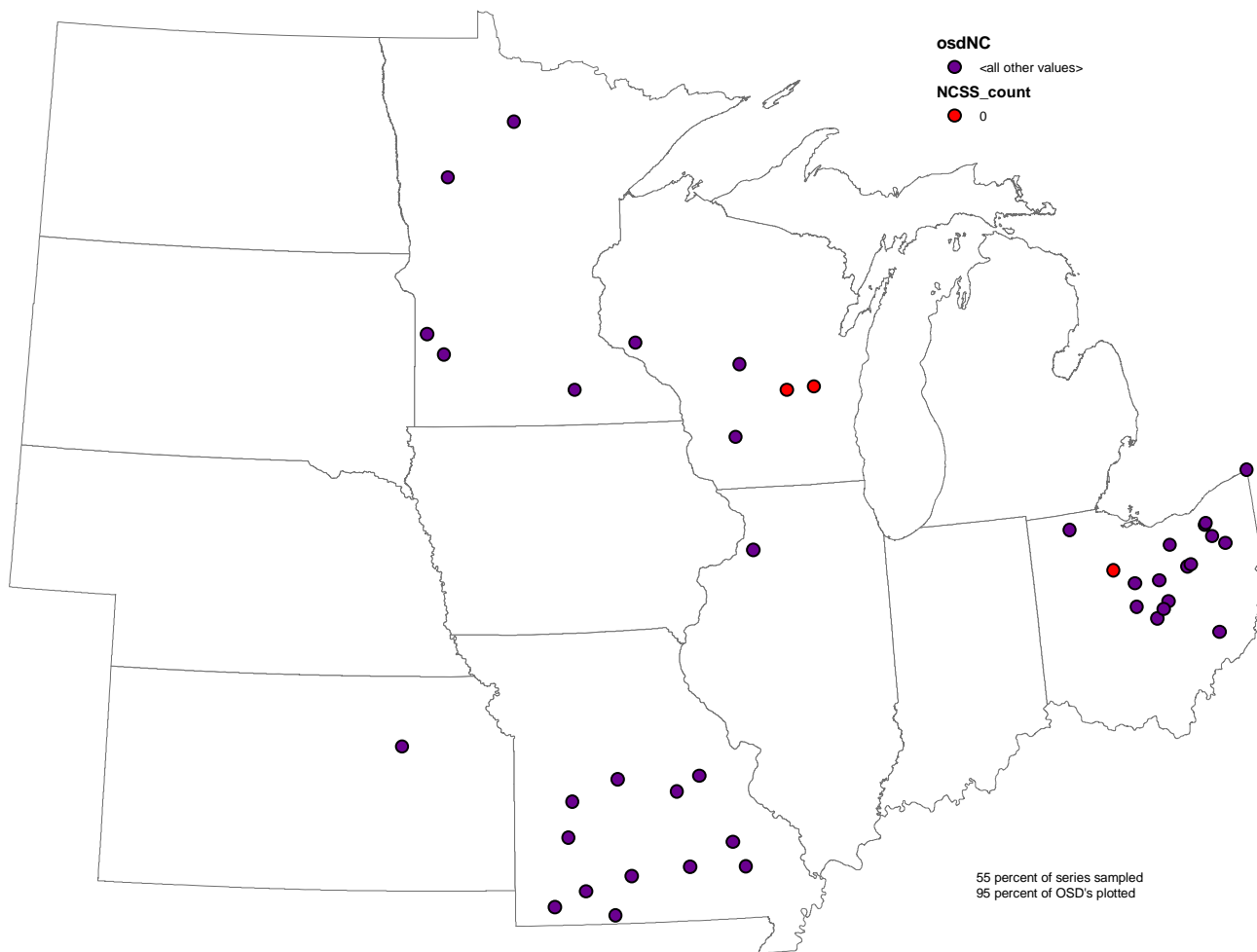
# Fill the Voids

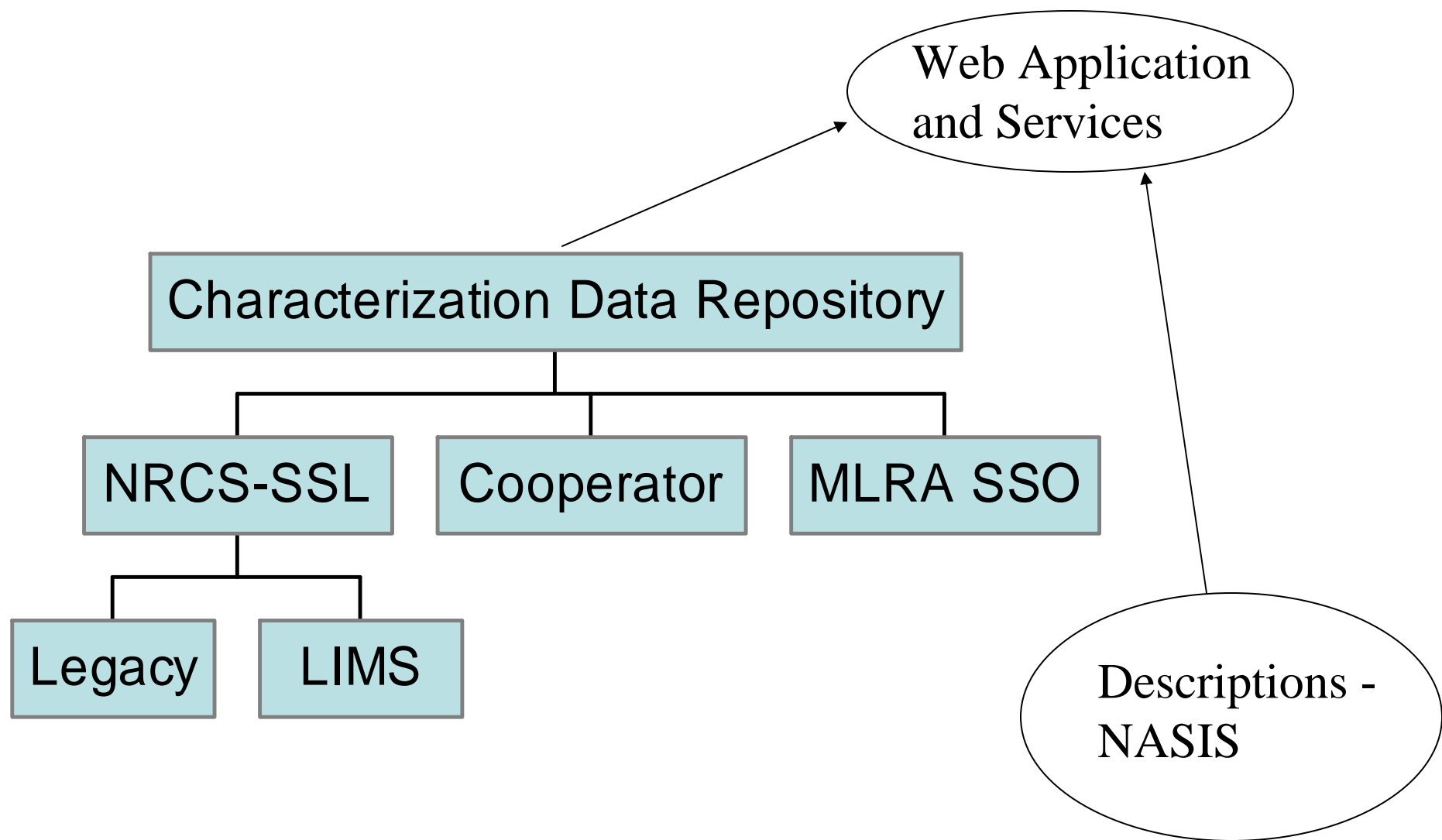




# Benchmark Data added from NCSS Labs

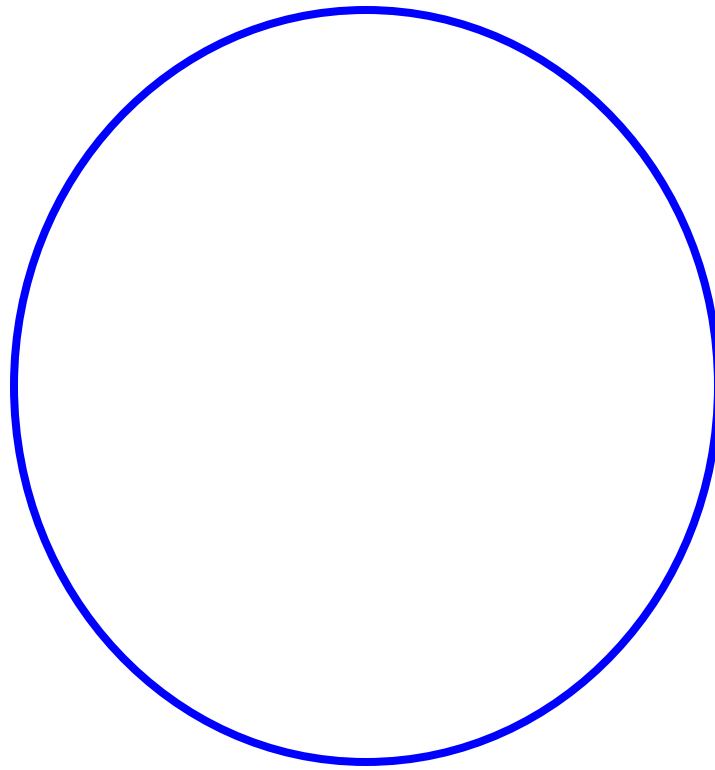
## Official Series Descriptions in North-Central US





# Cooperating Universities - 2007

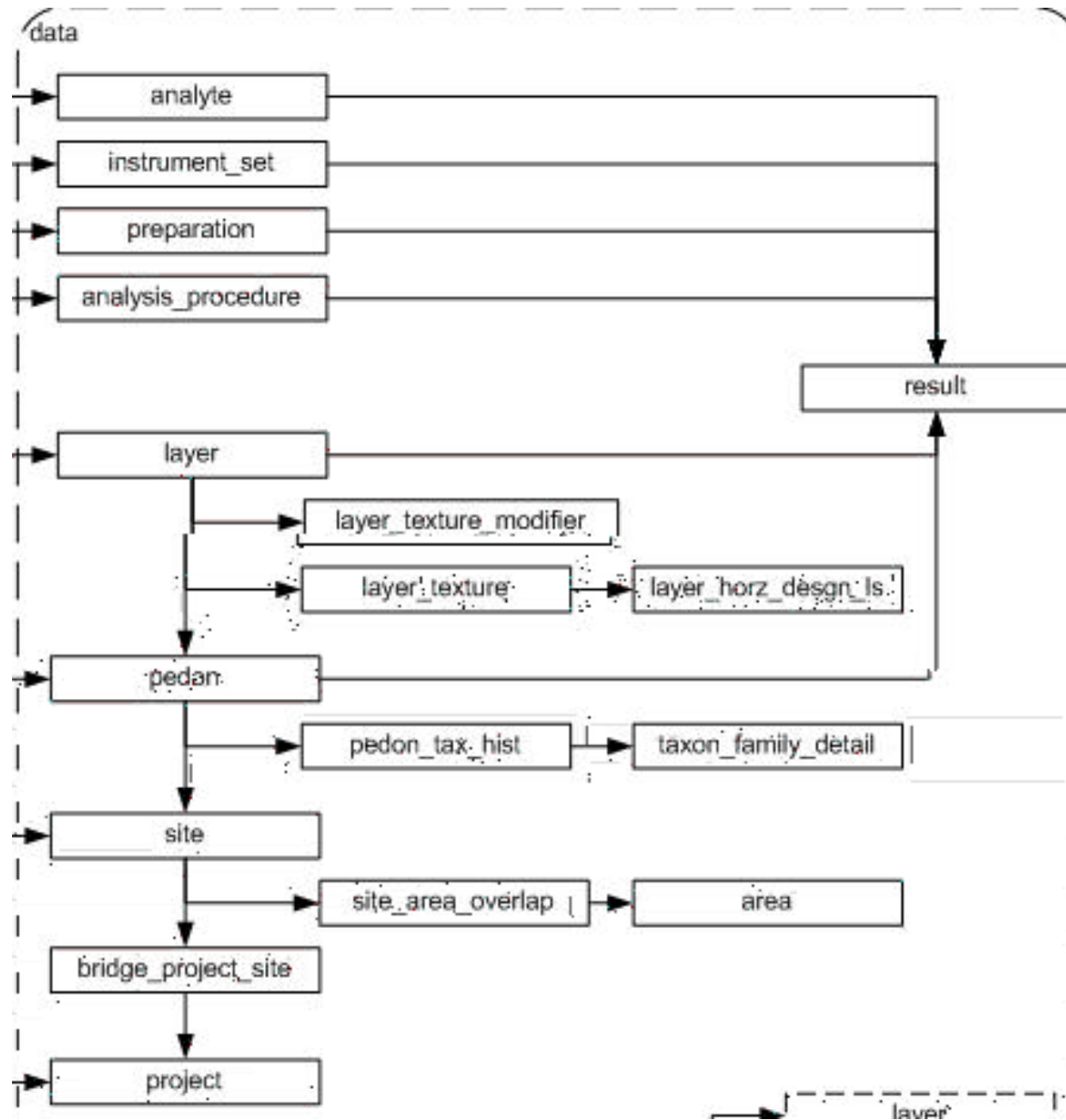
Cooperating University	Pedons	Data	Validate	Metadata	Description
Auburn University	300	x			x
Cornell University	800	xxx	xx	xxx	
North Dakota State University	1,700	xxx	xx	x	
Purdue University	1,600	xxx	xxx	xx	xx
University of California-Davis	1,500	x			x
University of Idaho	350	x			x
University of Illinois	2,177	xxx	xx	xx	xx
University of Minnesota	350	xxx	x		xx
Virginia Tech	1,700	x			x



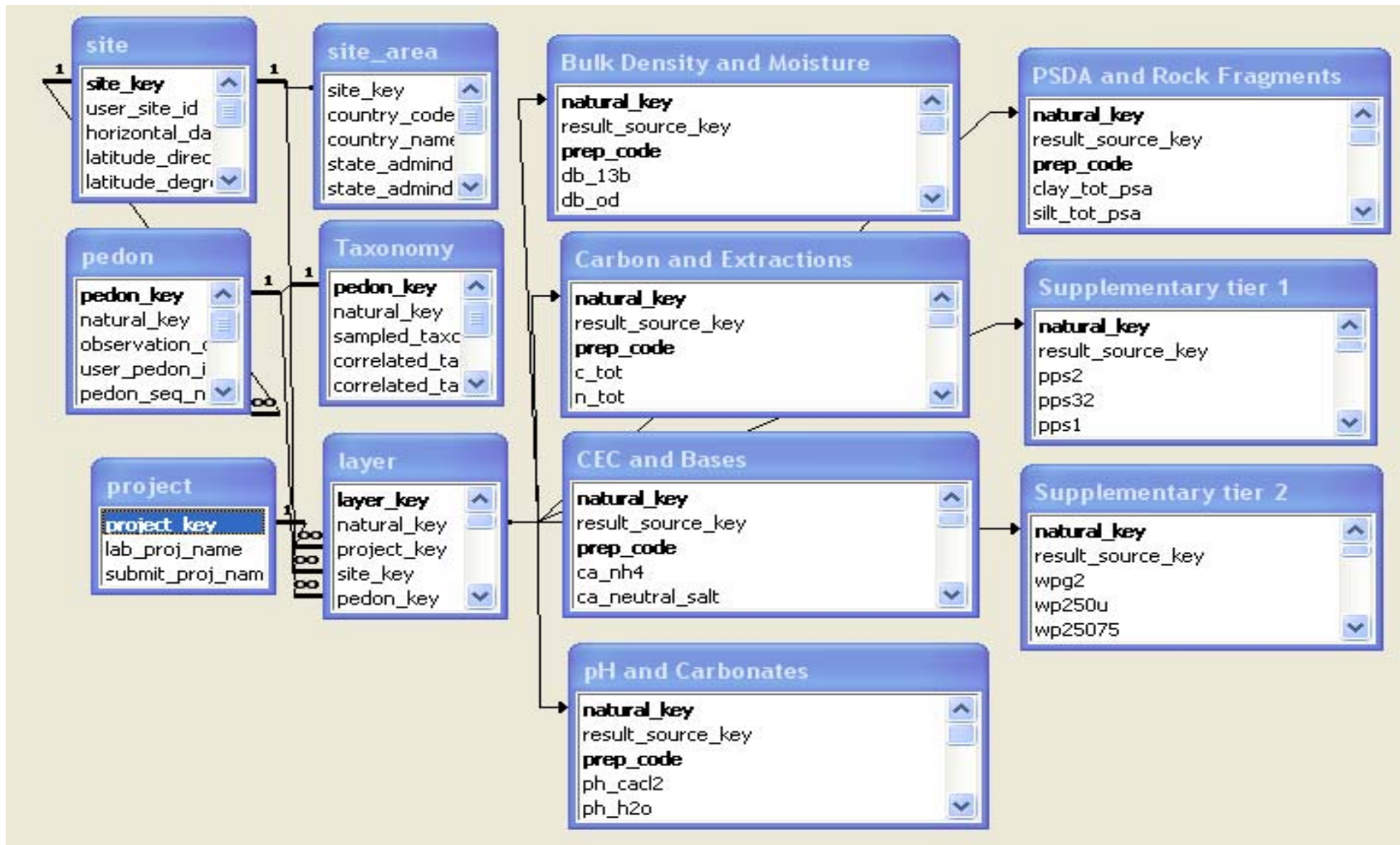
Repository  
data model



## Model core



# Sample User View



# Clay Summary Statistics by Master Horizon

correlated_taxon_name	hzn_ma	StDevO	VarOfcl	MinOfcl	MaxOfcl	AvgOfcl	CountO
Bluford	A	2.1445	4.5991	9.1	17.2	13.03	27
Bluford	B	8.5278	72.723	9.3	56.4	29.059	201
Bluford	BC	11.811	139.5	13.9	51.6	26.886	7
Bluford	BE	10.868	118.10	15.9	47.3	26.75	6
Bluford	C	11.627	135.18	13.3	45.1	23.095	19
Bluford	D	11.449	130.07	13.1	44.1	23.006	18
Bluford	E	11.373	128.32	13.0	43.9	22.995	17
Bluford	F	11.301	126.91	12.9	43.7	22.986	16
Bluford	G	11.232	125.76	12.8	43.5	22.978	15
Bluford	H	11.167	124.85	12.7	43.4	22.971	14
Bluford	I	11.105	124.07	12.6	43.3	22.965	13
Bluford	J	11.046	123.41	12.5	43.2	22.96	12
Bluford	K	10.991	122.86	12.4	43.1	22.956	11
Bluford	L	10.939	122.42	12.3	43.0	22.953	10
Bluford	M	10.891	122.08	12.2	42.9	22.95	9
Bluford	N	10.846	121.84	12.1	42.8	22.948	8
Bluford	O	10.804	121.69	12.0	42.7	22.946	7
Bluford	P	10.765	121.63	11.9	42.6	22.945	6
Bluford	Q	10.729	121.65	11.8	42.5	22.945	5
Bluford	R	10.696	121.74	11.7	42.4	22.946	4
Bluford	S	10.666	121.9	11.6	42.3	22.948	3
Bluford	T	10.639	122.12	11.5	42.2	22.951	2
Bluford	U	10.615	122.4	11.4	42.1	22.955	1
Bluford	V	10.594	122.73	11.3	42.0	22.96	1
Bluford	W	10.575	123.11	11.2	41.9	22.966	1
Bluford	X	10.559	123.54	11.1	41.8	22.973	1
Bluford	Y	10.545	124.01	11.0	41.7	22.981	1
Bluford	Z	10.533	124.52	10.9	41.6	22.99	1
Bluford	AA	10.523	125.07	10.8	41.5	23.0	1
Bluford	AB	10.515	125.66	10.7	41.4	23.006	1
Bluford	AC	10.509	126.28	10.6	41.3	23.013	1
Bluford	AD	10.505	126.93	10.5	41.2	23.021	1
Bluford	AE	10.502	127.61	10.4	41.1	23.03	1
Bluford	AF	10.501	128.31	10.3	41.0	23.04	1
Bluford	AG	10.501	129.04	10.2	40.9	23.051	1
Bluford	AH	10.502	129.79	10.1	40.8	23.063	1
Bluford	AI	10.504	130.57	10.0	40.7	23.076	1
Bluford	AJ	10.507	131.37	9.9	40.6	23.09	1
Bluford	AK	10.512	132.19	9.8	40.5	23.105	1
Bluford	AL	10.518	133.03	9.7	40.4	23.121	1
Bluford	AM	10.525	133.89	9.6	40.3	23.138	1
Bluford	AN	10.534	134.77	9.5	40.2	23.156	1
Bluford	AO	10.544	135.67	9.4	40.1	23.175	1
Bluford	AP	10.556	136.59	9.3	40.0	23.195	1
Bluford	AQ	10.569	137.53	9.2	39.9	23.216	1
Bluford	AR	10.584	138.49	9.1	39.8	23.238	1
Bluford	AS	10.601	139.47	9.0	39.7	23.261	1
Bluford	AT	10.619	140.47	8.9	39.6	23.285	1
Bluford	AU	10.639	141.49	8.8	39.5	23.31	1
Bluford	AV	10.661	142.53	8.7	39.4	23.336	1
Bluford	AW	10.685	143.59	8.6	39.3	23.363	1
Bluford	AX	10.711	144.67	8.5	39.2	23.391	1
Bluford	AY	10.739	145.77	8.4	39.1	23.42	1
Bluford	AZ	10.769	146.89	8.3	39.0	23.451	1
Bluford	BA	10.801	148.03	8.2	38.9	23.483	1
Bluford	BB	10.835	149.19	8.1	38.8	23.516	1
Bluford	BC	10.871	150.37	8.0	38.7	23.551	1
Bluford	BD	10.909	151.57	7.9	38.6	23.587	1
Bluford	BE	10.949	152.79	7.8	38.5	23.625	1
Bluford	BF	10.991	154.03	7.7	38.4	23.664	1
Bluford	BG	11.035	155.29	7.6	38.3	23.705	1
Bluford	BH	11.081	156.57	7.5	38.2	23.747	1
Bluford	BI	11.129	157.87	7.4	38.1	23.791	1
Bluford	BJ	11.179	159.19	7.3	38.0	23.836	1
Bluford	BK	11.231	160.53	7.2	37.9	23.883	1
Bluford	BL	11.285	161.89	7.1	37.8	23.931	1
Bluford	BM	11.341	163.27	7.0	37.7	23.981	1
Bluford	BN	11.399	164.67	6.9	37.6	24.032	1
Bluford	BO	11.459	166.09	6.8	37.5	24.085	1
Bluford	BP	11.521	167.53	6.7	37.4	24.14	1
Bluford	BQ	11.585	169.0	6.6	37.3	24.196	1
Bluford	BR	11.651	170.49	6.5	37.2	24.254	1
Bluford	BS	11.719	172.01	6.4	37.1	24.313	1
Bluford	BT	11.789	173.55	6.3	37.0	24.374	1
Bluford	BU	11.861	175.11	6.2	36.9	24.437	1
Bluford	BV	11.935	176.69	6.1	36.8	24.501	1
Bluford	BW	12.011	178.29	6.0	36.7	24.567	1
Bluford	BX	12.089	179.91	5.9	36.6	24.635	1
Bluford	BY	12.169	181.55	5.8	36.5	24.704	1
Bluford	BZ	12.251	183.21	5.7	36.4	24.775	1
Bluford	CA	12.335	184.89	5.6	36.3	24.848	1
Bluford	CB	12.421	186.59	5.5	36.2	24.922	1
Bluford	CC	12.509	188.31	5.4	36.1	25.0	1
Bluford	CD	12.599	190.05	5.3	36.0	25.079	1
Bluford	CE	12.691	191.81	5.2	35.9	25.16	1
Bluford	CF	12.785	193.59	5.1	35.8	25.243	1
Bluford	CG	12.881	195.39	5.0	35.7	25.328	1
Bluford	CH	12.979	197.21	4.9	35.6	25.415	1
Bluford	CI	13.079	199.05	4.8	35.5	25.504	1
Bluford	CJ	13.181	200.91	4.7	35.4	25.595	1
Bluford	CK	13.285	202.79	4.6	35.3	25.688	1
Bluford	CL	13.391	204.69	4.5	35.2	25.783	1
Bluford	CM	13.499	206.61	4.4	35.1	25.88	1
Bluford	CN	13.609	208.55	4.3	35.0	25.979	1
Bluford	CO	13.721	210.51	4.2	34.9	26.08	1
Bluford	CP	13.835	212.49	4.1	34.8	26.183	1
Bluford	CQ	13.951	214.49	4.0	34.7	26.288	1
Bluford	CR	14.069	216.51	3.9	34.6	26.395	1
Bluford	CS	14.189	218.55	3.8	34.5	26.504	1
Bluford	CT	14.311	220.61	3.7	34.4	26.615	1
Bluford	CU	14.435	222.69	3.6	34.3	26.728	1
Bluford	CV	14.561	224.79	3.5	34.2	26.843	1
Bluford	CW	14.689	226.91	3.4	34.1	26.96	1
Bluford	CX	14.819	229.05	3.3	34.0	27.079	1
Bluford	CY	14.951	231.21	3.2	33.9	27.2	1
Bluford	CZ	15.085	233.39	3.1	33.8	27.323	1
Bluford	DA	15.221	235.59	3.0	33.7	27.448	1
Bluford	DB	15.359	237.81	2.9	33.6	27.575	1
Bluford	DC	15.499	240.05	2.8	33.5	27.704	1
Bluford	DD	15.641	242.31	2.7	33.4	27.835	1
Bluford	DE	15.785	244.59	2.6	33.3	27.968	1
Bluford	DF	15.931	246.89	2.5	33.2	28.103	1
Bluford	DG	16.079	249.21	2.4	33.1	28.24	1
Bluford	DH	16.229	251.55	2.3	33.0	28.379	1
Bluford	DI	16.381	253.91	2.2	32.9	28.52	1
Bluford	DJ	16.535	256.29	2.1	32.8	28.663	1
Bluford	DK	16.691	258.69	2.0	32.7	28.808	1
Bluford	DL	16.849	261.11	1.9	32.6	28.955	1
Bluford	DM	17.009	263.55	1.8	32.5	29.104	1
Bluford	DN	17.171	266.01	1.7	32.4	29.255	1
Bluford	DO	17.335	268.49	1.6	32.3	29.408	1
Bluford	DP	17.501	270.99	1.5	32.2	29.563	1
Bluford	DQ	17.669	273.51	1.4	32.1	29.72	1
Bluford	DR	17.839	276.05	1.3	32.0	29.879	1
Bluford	DS	18.011	278.61	1.2	31.9	30.04	1
Bluford	DT	18.185	281.19	1.1	31.8	30.203	1
Bluford	DU	18.361	283.79	1.0	31.7	30.368	1
Bluford	DV	18.539	286.41	0.9	31.6	30.535	1
Bluford	DW	18.719	289.05	0.8	31.5	30.704	1
Bluford	DX	18.901	291.71	0.7	31.4	30.875	1
Bluford	DY	19.085	294.39	0.6	31.3	31.048	1
Bluford	DZ	19.271	297.09	0.5	31.2	31.223	1
Bluford	EA	19.459	299.81	0.4	31.1	31.4	1
Bluford	EB	19.649	302.55	0.3	31.0	31.579	1
Bluford	EC	19.841	305.31	0.2	30.9	31.76	1
Bluford	ED	20.035	308.09	0.1	30.8	31.943	1
Bluford	EE	20.231	310.89	0.0	30.7	32.128	1
Bluford	EF	20.429	313.71	0.0	30.6	32.315	1
Bluford	EG	20.629	316.55	0.0	30.5	32.504	1
Bluford	EH	20.831	319.41	0.0	30.4	32.695	1
Bluford	EI	21.035	322.29	0.0	30.3	32.888	1
Bluford	EJ	21.241	325.19	0.0	30.2	33.083	1
Bluford	EK	21.449	328.11	0.0	30.1	33.28	1
Bluford	EL	21.659	331.05	0.0	30.0	33.479	1
Bluford	EM	21.871	334.01	0.0	29.9	33.68	1
Bluford	EN	22.085	337.0	0.0	29.8	33.883	1
Bluford	EO	22.301	340.01	0.0	29.7	34.088	1
Bluford	EP	22.519	343.05	0.0	29.6	34.295	1
Bluford	EQ	22.739	346.11	0.0	29.5	34.504	1
Bluford	ER	22.961	349.19	0.0	29.4	34.715	1
Bluford	ES	23.185	352.29	0.0	29.3	34.928	1
Bluford	ET	23.411	355.41	0.0	29.2	35.143	1
Bluford	EU	23.639	358.55	0.0	29.1	35.36	1
Bluford	EV	23.869	361.71	0.0	29.0	35.579	1
Bluford	EW	24.101	364.89	0.0	28.9	35.8	1
Bluford	EX	24.335	368.09	0.0	28.8	36.023	1
Bluford	EY	24.571	371.31	0.0	28.7	36.248	1
Bluford	EZ	24.809	374.55	0.0	28.6	36.475	1
Bluford	FA	25.049	377.81	0.0	28.5	36.704	1
Bluford	FB	25.291	381.09	0.0	28.4	36.935	1
Bluford	FC	25.535	384.39	0.0	28.3	37.168	1
Bluford	FD						

# Base Data by Horizon

	taxon_name	county_name	user_pedon_id	hzn_de	hzn_top	hzn_bot	cec_nh4	ecec	base_sum	fldsymb	mapsyt	class_type	layer_k
►	Bluford	Clay	89IL025014	Ap	0	15	7.5		8.6			sampled as	107140
	Bluford	Clay	89IL025014	E1	15	23	8.9	6.6	4			sampled as	107141
	Bluford	Clay	89IL025014	E2	23	46	23.3	19.4	7.9			sampled as	107142
	Bluford	Clay	89IL025014	Bt1	46	53	24.9	20.8	8.9			sampled as	107143
	Bluford	Clay	89IL025014	Bt2	53	71	19.5	16.2	7.8			sampled as	107144
	Bluford	Clay	89IL025014	Bt3	71	102	14.9	12.6	8.7			sampled as	107145
	Bluford	Clay	89IL025014	2Btx	102	152	16		15.6			sampled as	107146
	Bluford	Clay	89IL025014	2BCg	152	229	17.8		18.9			sampled as	107147
	Bluford	Clay	89IL025014	2Btgb1	229	267	16		17.9			sampled as	107148
	Bluford	Clay	89IL025014	3Btgb2	267	343	11.2					sampled as	107149
	Bluford	Clay	90IL025053	Ap	0	18	8		6.6			sampled as	107151
	Bluford	Clay	90IL025053	E	18	32	7.7	5.7	4.9			sampled as	107152
	Bluford	Clay	90IL025053	Btg1	32	58	15.7	12.5	4.5			sampled as	107153
	Bluford	Clay	90IL025053	Btg2	58	95	21.2	17.3	8			sampled as	107154
	Bluford	Clay	90IL025053	Btg3	95	130	17.9	14.3	9.8			sampled as	107155
	Bluford	Clay	90IL025053	2Bcg	130	170	10.6	9.2	8.6			sampled as	107156
	Bluford	Clay	90IL025053	3Ab	170	220	10.1		9.6			sampled as	107157
	Bluford	Clay	90IL025053	3Btgb1	220	240	11.8		11.8			sampled as	107158
	Bluford	Clay	90IL025053	3Btgb2	240	265	15.4		16.1			sampled as	107159
	Bluford	Clay	90IL025053	3BCb	265	350	12.5					sampled as	107160
	Bluford	Clay	90IL025053	3C1	350	400	6.8					sampled as	107161
	Bluford	Clay	90IL025053	3C2	400	750	3.5					sampled as	107162
	Bluford	Clay	90IL025053	4C	750	850	23.8					sampled as	107163
	Bluford	Clay	90IL025057	Ap	0	20	9.6		10.3			sampled as	107190
	Bluford	Clay	90IL025057	E	20	35	8.6		4.5			sampled as	107191
	Bluford	Clay	90IL025057	Btg1	35	75	20.9	17.4	6.7			sampled as	107192
	Bluford	Clay	90IL025057	Btg2	75	130	21.3	18.3	12.5			sampled as	107193
	Bluford	Clay	90IL025057	Btg3	130	200	21.6		21.5			sampled as	107194
	Bluford	Clay	90IL025057	2BCg	200	255	14.3		15.1			sampled as	107195
	Bluford	Clay	90IL025057	3Btg1	255	280	22.9		24			sampled as	107196
	Bluford	Clay	90IL025057	3Btg2	280	355	22.7					sampled as	107197
	Bluford	Clay	90IL025057	4C	355	480	8.7					sampled as	107198
	Bluford	Clay	90IL025057	5C	480	580	1.9					sampled as	107199

Pedon Identification: 00IL053001

Site Identification: 00IL053001

Laboratory Pedon ID: 00P0991

## &lt;----- DESCRIPTION INFORMATION -----&gt;

Laboratory	Soil Name	Taxon Kind	Taxonomy Phrase
SSL	Pella		
SSL	Pella	series	Fine-silty, mixed, superactive, mesic Typic Endoaquolls

## Correlated Soil

Pella

## Pedon Type

within range of map unit

## Last Update

09/18/2001

03/12/2008

## Site Origin

NSSL

MLRA11\_Office

## &lt;----- REPOSITORY INFORMATION -----&gt;

Class Type	Soil Name	Taxon Kind	Taxonomy Phrase	Classifier	Date
sampled as	Pella	series			

## &lt;----- SITE INFORMATION -----&gt;

Type	Degrees	Direction	Minutes	Seconds	Datum
Latitude	40	north	44	55.00	NAD27
Longitude	88	west	7	39.00	

## &lt;----- NOTE INFORMATION -----&gt;

## Author

## Creation Date

## Note

Note Is Unavailable!

## Geo-Reference Point Map Unit Information:

Name: Pella silty clay loam, 0 to 2 percent slopes

Symbol: 153A

Kind: Consociation

Pella Series Correlation Report

Pedon Identification: 83IL053006

Site Identification: 83IL053006

Laboratory Pedon ID: 83P0771

## &lt;----- DESCRIPTION INFORMATION -----&gt;

Description Is Unavailable!

## &lt;----- REPOSITORY INFORMATION -----&gt;

Class Type	Soil Name	Taxon Kind	Taxonomy Phrase	Classifier	Date
sampled as	Pella	series	Fine-silty, mixed, mesic Typic Haplaquoll		11-01-1991
SSL	Pella	series	Fine-silty, mixed, mesic Typic Haplaquoll		11-01-1991
correlated	Pella	series	Fine-silty, mixed, superactive, mesic Typic Haplaquoll		11-01-1991

## &lt;----- SITE INFORMATION -----&gt;

Type	Degrees	Direction	Minutes	Seconds	Datum
Latitude	40	north	48	21.00	
Longitude	88	west	9	0	

## &lt;----- NOTE INFORMATION -----&gt;

Author	Creation Date	Note
--------	---------------	------

Note Is Unavailable!

## Geo-Reference Point Map Unit Information:

Name: Pella silty clay loam, 0 to 2 percent slopes

Symbol: 153A

Pella Series Correlation Report

Kind: Consociation



- Liaisons reassigned to divide MLRA SSO workload
- SOI8
- Georeference
  - Characterization sites
  - OSD
  - NASIS Descriptions
- Shape files



